



# LIEBHERR

## OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Machine Id  
**LIEBHERR LH50 1203-77107**  
Component  
**Rear Left Wheel Hub**  
Fluid  
**CHEVRON DELO GEAR ESI OIL 80W90 (1 GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0258801</b>	LH0272543	LH0254741
Sample Date		Client Info		<b>01 Mar 2024</b>	29 Nov 2023	16 Jun 2023
Machine Age	hrs	Client Info		<b>20946</b>	20037	18994
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>325	<b>34</b>	43	78
Chromium	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	1	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Lead	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>75	<b>2</b>	2	3
Tin	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	LIGHT	MODER
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

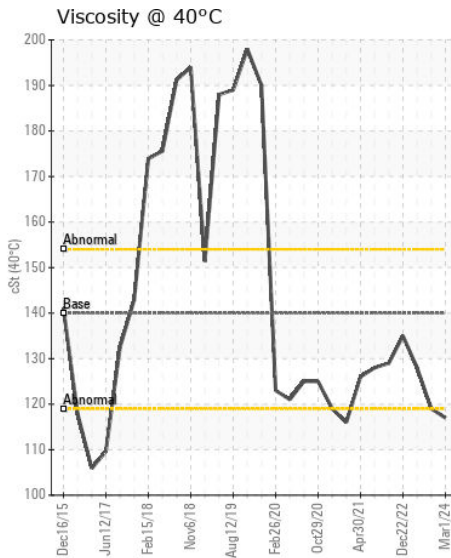
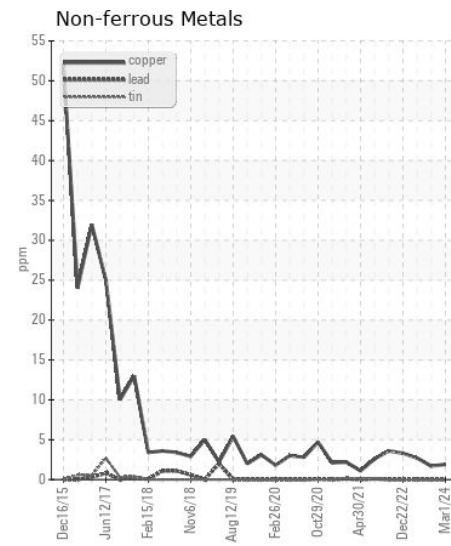
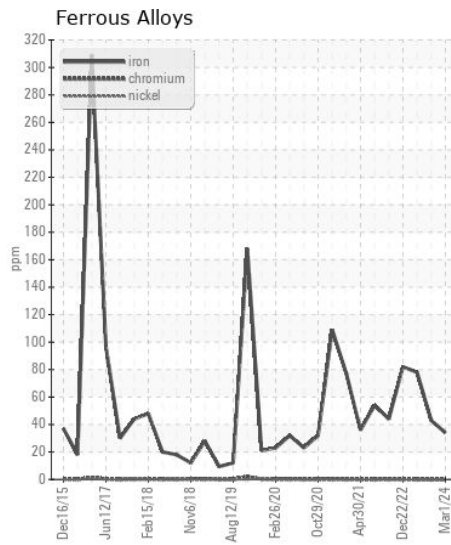
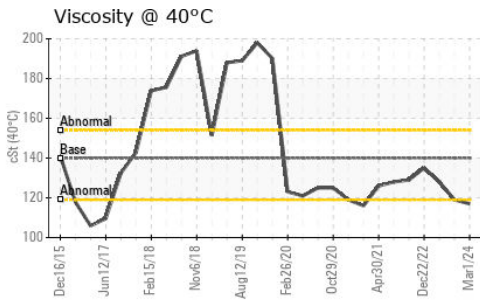
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>75	<b>6</b>	4	14
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	0	<1
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Silt	scalar	*Visual	NONE	<b>NONE</b>	LIGHT	NONE
Debris	scalar	*Visual	NONE	<b>LIGHT</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<b>0</b>	0	1
Boron	ppm	ASTM D5185m	15	<b>1</b>	6	10
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	0	<b>0</b>	0	<1
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m	0	<b>&lt;1</b>	11	7
Calcium	ppm	ASTM D5185m	5	<b>55</b>	62	61
Phosphorus	ppm	ASTM D5185m	600	<b>878</b>	722	826
Zinc	ppm	ASTM D5185m	0	<b>19</b>	27	33
Sulfur	ppm	ASTM D5185m	22000	<b>25115</b>	21599	25056
Visc @ 40°C	cSt	ASTM D445	140	<b>117</b>	119	128



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LH0258801  
**Lab Number** : 06124411  
**Unique Number** : 10938562  
**Test Package** : CONST

**Received** : 20 Mar 2024  
**Tested** : 21 Mar 2024  
**Diagnosed** : 23 Mar 2024 - Don Baldrige

**AMERICAN STATE EQUIPMENT CO.**  
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To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)